U.S. EPA Science Advisory Board
Radiation Advisory Committee
FY 2004 Member Biosketches

General Biosketch

Radiation Advisory Committee

Anspaugh,Lynn

University of Utah

Dr. Anspaugh currently is Research Professor in Radiobiology, in the Department of Radiology at the University of Utah, Salt Lake City and a consultant with Science Applications International Corporation (SAIC) in Las Vegas, NV. He has held a number of teaching and visiting lecturer positions. His principal research interests include trace elements in human metabolism, aeolian resuspension of transuranic radionuclides, public health implications of the use of nuclear fuel, environmental effects of utilizing geothermal energy, reconstruction of radiation doses from early fallout of nuclear weapons tests, and calculation of radiation doses from nuclear reactor accidents. Dr. Anspaugh has authored or co-authored over 200 publications and 40 abstracts in the above and related topics. Dr. Anspaugh served as a Biophysicist and Director of the Dose Reconstruction Program, as well as Director of the Risk Sciences Center at the Lawrence Livermore National Laboratory. He is active in a number of national and international professional societies, including the American Association for the Advancement of Science (AAAS), the Health Physics Society (currently a fellow of the HPS, as well as Past President of the Northern California Chapter and Environmental Radiation Section of the HPS), the International Union of Radioecology, and the Society for Risk Analysis. He was a consultant on developing a Federal strategy for research into the Biological Effects of Ionizing Radiation (BEIR), as well as a consultant to the SAB's Subcommittee on Risk Assessment for Radionuclides (1984). He has served on a number of prestigious national and international working groups, including the U.S. Delegation to the United Nations Scientific Committee on the Effects of Atomic Radiation. He holds a B.A. in Physics, Masters in Bioradiology (Health Physics), and Ph.D. in Biophysics.

Boecker,Bruce

Lovelace Respiratory Research Institute

Dr. Bruce B. Boecker: is currently a member of the SAB's RAC. He is Scientist Emeritus, Lovelace Respiratory Research Institute, Albuquerque, New Mexico. Past President, HPS and elevated to honorary member of the National Council on Radiation Protection and Measurements (NCRP). Also a Diplomate of the American Board of Health Physics and Certified Health Physicist, Dr. Boecker is a Fellow of the Health Physics Society (HPS). He has served on numerous committees dealing with intake, internal doses, bioassays, epidemiology, radiobiology and risk of radionuclides. He was a consultant to develop a Federal strategy for research into the biological effects of ionizing radiation. Dr. Boecker's research interests lie mainly in two broad areas, namely (1) inhalation toxicology and (2) dose-response relationships for long-term biological effects produced by internally deposited radionuclides. He is particularly interested in the conduct of animal experimentation to develop information that may be used to predict the consequences of accidental exposure of man or to establish standards that ensure the safe and orderly conduct of activities that may result in release of toxic agents to man's environment. His personal research efforts have been associated primarily with the toxicology of airborne material associated with different activities in the nuclear fuel cycle. This research has spanned broadly from studies of aerosol characteristics as they may influence patterns of deposition, retention, and dosimetry on through to risk assessments for different nuclear energy systems. Dr. Boecker holds a Ph.D. and M.S. in Radiation Biology from the University of Rochester and a B.A. in Physics from Grinnell College.

Brooks,Antone L. "Tony"

Washington State University

Dr. Antone L. (Tony) Brooks is a radiation biologist and is a Senior Scientist and Professor of Radiation Toxicology in the Environmental Science Department at Washington State University in Richland, WA. His research interests include radiation risks, cytogenetics, and radiation health effects. Dr. Brooks has conducted extensive research on health effects of radiation exposure from both external radiation sources and internally deposited radioactive materials. He has done research using a microbeam to compare the influence of alpha particles from radon exposure to alpha particles with defined energy and numbers delivered to specific cellular and sub-cellular locations. The use of biomarkers of exposure, dose, susceptibility, and disease have been a major research effort for Dr. Brooks to better estimate radiation risk. Recent publications deal with the topics of developing a scientific basis for radiation risk estimates in low dose radiation research, liver cancer risk from internally deposited radionuclides, the state of the art of biomarkers of exposure and dose, energy barriers for radiation-induced cellular effects, carinogenesis, bystander effects and genomic instability, and energy barriers for radiation-induced cellular effects. Dr. Brooks has served as a member of the NAS BEIR VI Committee on Health Effects of Exposure to Radon. He also is currently working with DOE on their low dose research initiative. He was employed as a Radiation Biologist at Battelle's Pacific Northwest National Laboratory (1989 to 1996), and prior to that at the Lovelace Inhalation Toxicology Research Institute (1979-1989). He is a member of the National Council on Radiation Protection and Measurements (NCRP) (since 1980). He is a member of the Science Advisory Council of the International Consortium for Health Effects of Ionizing Radiation (ICRHER). He is a member of the National Institute of Health's Cancer-Biology-Immunology Contract Review Committee. Since 1980 he has Co-Chaired the NCRP's Task Group 10 on Liver Cancer Risk from Internal Emitters. He Co-Chaired the American Statistical Association's Organizing Committee for the Health Effects of Radiation for the Year 2000. He is a Science Advisor to DOE on their Low Dose Research Program. He is a member of the Editorial Board of the International Journal of Radiation Biology. He is widely published, having over 140 publications dealing with topics such as biomarkers of exposure, sensitivity and disease, metaphase chromosome aberrations as markers of radiation exposure and dose, use of cellular and molecular biology in risk assessment, biological and molecular approaches to dosimetry at low dose rates, radon-induced micronuclei in respiratory tract biodosimetry, differential lung cancer response following inhaled radon, biological responsiveness of radon-progeny, effect of radon on the immune system, the combined genotoxic effects of radiation and occupational pollutants, environmental decision-making and the role of risk assessment, management and communication and related topics. Dr. Brooks received an associate's degree in Chemistry Education from Dixie Junior College in St. George, Utah, a B.S. in Experimental Biology and an M.S. in Radiation Ecology from the University of Utah in Salt Lake City, and a Ph.D. in Physical Biology from Cornell University in Ithaca, New York.Dr. Brooks is currently funded through a DOE grant to WSU-Tricities to provide scientific expertise for a Web Site at WSU. The focus of this web site is to first, to follow the scientific progress of the DOE Low Dose Radiation Research Program and second, to help DOE provide outreach to the scientific community and the public that will help them understand the biological changes induced by low doses of ionizing radiation. 10/15/03

Bussod,Gilles

New England Research

Dr. Gilles Bussod is currently a member of the SAB's RAC. He is currently affiliated with New England Research, Inc. (NER) in White River Junction, VT as Chief Scientist. NER is a small 20 year old research company with 19 employees (9 PhD's) located in Vermont, and is affiliated with MIT and specializes in Geophysical Reserarch applications and their commercialization: mostly ultrasonics, EM and other physical properties of rocks, as well as Hydrogeology, flow and transport processes. He had recently served on the Faculty of Science in the International Research Center of the Catholic University of Leuven, Campus Kortrijk in Belgium. Dr. Bussod was employed as President of Science Network International, Inc., and was previously employed as a Hydrogeologist and Geochemist at Los Alamos National Laboratory, Los Alamos, N.M. In this later position, he worked on several Environmental Restoration Programs specializing in the design and implementation of field studies on radionuclide transport and the remobilization of "legacy waste" (using chemical analogues) in the environment. He also served from 1994 through 1999 as LANL Project Leader and technical manager for the Yucca Mountain Project, and PI for the Underground Unsaturated Zone Transport Test, Busted Butte, Nevada. He also holds an appointment as Professor Candidat aux Universities de France since 1994. As Principal Investigator for the Yucca Mountain project, he was resident expert on unsaturated zone transport, flow and transport phenomena. He holds authorship or co-authorship in over 60 publications involving geochemical, flow transport and related phenomena, as well and over 30 invited oral presentations dealing with unsaturated zone modeling, high pressure and high temperature research in experimental rock physics and petrology, novel drilling methods, rock melting drilling systems, deformation mechanisms, energy extraction techniques, high pressure experimental seismic velocity measurements and related topics. Dr. Bussod was a Professor of Earth and Space Sciences at UCLA, as well as the University of France. He holds a 1998 U. S. patent for a rock-melting tool. He is a member of a number of professional societies, including the American Geophysical Union, and has received a number of awards for his research. Dr. Bussod is a geochemist with a Ph.D. in Geology and Earth and Space Sciences from UCLA. Dr. Bussod received funding from the Environmental Restoration Program, and Post Cerro-Grande Fire Monitoring Project, Los Alamos National Laboratory. He also receives funding from Geophysical and Environmental Sciences Consulting, at New England Research, Inc. in Vermont, and was a Consultant and Researcher for the European Conservation Project, and the Catholic University of Leuven, Belgium. Dr. Bussod was a visiting Professor and researcher at the Bayerisches Geoinstitut in Germany, as well as a Professor at the University of Paris, France and in 1998, served as a Delegation Member to the U.S. Secretary of State at the Economic Summit Conference in Doha, Qatar. He is a member of a number of professional societies, including the American Geophysical Union, and has received a number of awards for his research. He also holds a 1998 U. S. patent for a rock-melting tool. Dr. Bussod is a geochemist with a Ph.D. in Geology and Earth and Space Sciences from UCLA and a Ph.D. in Geophysics from the University of Paris, France.

Dodd,Brian

International Atomic Energy Agency

Dr. Dodd has recently completed an assignment with the International Atomic Energy Agency (IAEA) in Vienna, Austria and is returning to the United States. He has been on the faculty of Oregon State University (OSU) since 1978, having served as a Professor of Nuclear Engineering and Radiation Health Physics at OSU from 1998 to 2002., and with OSU's Radiation Health Physics Program from 1988 to 1994. He served as Adjunct Faculty with the Federal Emergency Management Agency (FEMA) from 1986 to 1992. He has served as a consultant, Lecturer and Senior Lecturer at the Royal Naval College in London, as well as a Post-Doctoral Research Fellow at the Imperial College of London University. His fields of specialization are radiation protection, research reactor health physics, operations and management, transport of radioactive material, education and training, and emergency response and planning. He has consulted broadly and served on a number of distinguished committees, boards and commissions. For instance, he is a Fellow of the Health Physics Society (HPS) and has been active on the HPS Board of Directors on a number of officer and committee positions nationally and locally. He has served on the American Nuclear Society (ANS) ANSI Accredited Consensus Committee on reactors and reactor physics and others, such as Chair of the Nuclear and Safety Sub-Panel on Health Physics Instruments. He has served on Oregon Health Division's Radiation Advisory Committee, and as the U.S. Representative of the Institution of Nuclear Engineers Council Overseas. He also served as the Science Advisor to the London Borough of Hackney (Home Defense). He authored or co-authored a number of IAEA/UN publications on security of radioactive sources, safe transport of radioactive materials, management of radiation protection, quality aspects of research reactor operations and related topics. He has authored or co-authored over 100 publications in technical journals, conference proceedings, reports and others dealing broadly with the above topics. Dr. Dodd has a B.S. in Nuclear Engineering and Ph.D. in Reactor Physics from Queen Mary College, London University.

Fry,Shirley

Shirley Fry, M.D., M.P.H., was the assistant director of the Medical Sciences Division (MSD) of Oak Ridge Associated Universities (OARU) from1980 until she retired in 1995. She joined the MSD's Radiation Emergency Assistance Center/Training Site (REAC/TS) in 1978 as a clinician and continued as a member of the REAC/TS teaching faculty and response team through 1995. She was named Director of OARU's Center for Epidemiologic Research (CER) in 1984, after having served as acting director for the program since 1982. In this program she directed a component of D.O.E's health and mortality study of atomic workers. She also continued as director of CER until 1991. In her capacity as assistant director of MSD, she oversaw the direction of REAC/TS, CER, the Radiation Internal Dose Information Center, the Center for Human Reliability Studies, the Cytogenetics program, and the occupational medicine program. Dr. Fry is the author or co-author of a number of scientific publications on the acute and long-term health effects of radiation. She has served on national and international groups interested in these areas, including the NAS/IOM's committee on Battlefield Exposure Criteria, the US/USSR Joint Commission on Chernobyl Nuclear Reactor Safety (JCCNRS) - Health Studies Group and the International Agency for Research on Cancer's (IARC) International Study of Cancer Risk Among Nuclear Workers. She is currently a member of the Health Physics Society-National Society, the Hoosier Chapter of the Health Physics Society, the Radiation Research Society, and the American College of Occupational and Environmental Medicine. In 1995, Dr. Fry received a Lifetime Achievement Award from the East Tennessee Chapters of the HPS and of the Association for Women in Science for her life-long commitment and contributions to science. Previous to joining OARU, Dr. Fry was a research associate/clinician at the Center for Human Radiobiology at Argonne National Laboratory. She earned her medical degree from the University of Dublin, Ireland, in 1957. In 1984, she received her master's degree in Public Health from the University of North Carolina's Department of Epidemiology. 10/24/2003

Griffith,William C.

University of Washington

Dr. William C. Griffith was trained as a biostatistician and has collaborated for over three decades in studies of the dosimetry and health effects of radiation and other toxicants. His work has included design, data collection and analysis of laboratory and field based studies. In particular he has extensive experience in estimation of doses from internally deposited radionuclides and estimation of dose response in terms of age specific incidence rates and prevalence. He has also been active in translating his experience into models that are useful for health protection through his participation in committees of the National Council for Radiation Protection. More recently he has analyzed how these models are applied in environmental cleanup of the Department of Energy's Hanford site, and he has worked extensively with committees of the Hanford Advisory Board. Most recently he has been funded as part of the Department of Energy's Low Dose Radiation Program to translate laboratory results into mathematical models that will be useful for future regulation of radiation.Dr. Griffith also has experience in the study of non-radioactive toxicants. He was part of the team at the Lovelace Inhalation Toxicology Research Institute that was the first to prove that diesel exhausts are pulmonary carcinogens in laboratory animals. For the last five years at the University of Washington he has been director of the Risk Characterization Core for the Child Health Center funded by the Environmental Protection Agency and the National Institute of Environmental Health Science. As director he has designed and developed statistical methods for analysis of a community based randomized intervention to test the effectiveness of educating farm workers about how they can decrease the accidental exposures of their children from pesticides they bring home on their clothes. Dr Griffith has also collaborated with EPA Region 10 by lecturing frequently on how to apply statistical methods to superfund cleanup decisions. This year he organized 8 workshops on the application of new genomic and proteonomic methods in collaboration with EPA-ORD for EPA regions, state and tribal environmental offices.

Grogan,Helen Ann

Cascade Scientific, Inc.

Dr. Helen Ann Grogan is a member of the SAB's RAC. She is presently serving as a consultant to the SAB's Modeling Subcommittee. She is employed as an independent consultant who has her own consulting firm, Cascade Scientific, which has been subcontracted by Radiological Assessments Corporation (RAC) to work on a variety of projects, including two dose reconsrtuction projects (Rocky Flats near Denver, CO and Savannah River in So. Carolina). Her work has emphasized quantifying cancer risk and its uncertainty following exposure to plutonium from inhalation. She has also assisted in the development of an International Features Events and Processes (FEP) database for the Nuclear Energy Agency (NEA) Organization for Economic Cooperation and Development(OECD) in France to be used in the performance assessment of radioactive waste disposal systems. In addition, she was also involved with the Swiss National Cooperative for the Disposal of Radioactive Waste (Nagra), for High Level Waste (HLW) and Low-/Intermediate-Level Waste (L/ILW) specifically in the development of scenario analyses for the Nagra Kristallin I and Wellenberg projects and development of supporting data bases that identify important phenomena (features, events and processes) that need to be accounted for in repository performance assessment and the Biospheric Model Validation Study - Phase II) BIOMOVS II study, which is an international cooperative effort to test models designed to quantify the transfer and accumulation of radionuclides and other trace substances in the environment. Dr. Grogan's doctoral thesis title is "Pathways of radionuclides from soils into crops under British field conditions." She has authored or co-authored several dozen publications, and technical reports dealing with the role of microbiology modeling the geological containment of radioactive wastes, plant uptake of radionuclides, laboratory modeling studies of microbial activity, models for prediction of doses from the ingestion of terrestrial foods (with a focus on radionuclides), long-term radioactive waste disposal assessment, modeling of radionuclides in the biosphere, quantitative modeling of the effects of microorganisms on radionuclide transport from a High Level Waste (HLW) respository and related topics. She is a Botanist with modeling and radionuclide experience. She is a British citizen who received her Bachelor of Science Degree in Botany with honors from the Imperial College of Science and Technology at the University of London, and her Ph.D. from that same university.

Hornung,Richard W.

University of Cincinnati

Dr. Richard W. Hornung is a member of the RAC since FY 2001. He currently heads the Statistical Working Group of the Multi-Agency Radiological Laboratory Analytical Protocols (MARLAP) Review Panel. He served as a consultant to the RAC (March, 1999), and participated in the SAB's advisory on Radon Risk. He is currently a Senior Research Associate and Director of the Division of Biostatistical Research and Support in the Institute for Health Policy and Health Services Research at the University of Cincinnati Medical Center in Cincinnati, Ohio. He has served since 1996 as a member of the White House Committee on Revisions to the Radiation Exposure Compensation Act. Since 1990, he has served as an advisor on the National Research Council. He received numerous awards, including the U.S. Public Health Service award for "Sustained High Level Performance in the Field of Biostsatistics." He was a consultant to the National Academy of Science Committee on the Biological Effects of Ionizing Radiation (BEIR IV). He is a reviewer for a dozen scientific journals. His peer-reviewed publications deal with exposure assessment methods, lung cancer risk in Uranium miners, dose assessments, dose reconstruction, development of models for use in estimating exposures to a number of pollutants, including diesel exhaust, benzene, ethylene oxide, lung cancer in shipyard workers and other related topics. Dr. Horning has a B.S. in Mathematics from the University of Dayton, an M.S. in Statistics from the University of Kentucky, and a Ph.D. in Biostatistics from the University of North Carolina.

Johnson,Janet A.

MFG, Inc.

Dr. Janet Johnson is currently employed at MFG, Inc. in Fort Collins, CO as a Senior Radiation Scientist with expertise in health physics, chemistry, and environmental health. She was formally employed by Colorado State University as Interim Director of Environmental Health Services in Fort Collins, Colorado. She is a certified industrial hygienist (CIH, radiological aspects) in the comprehensive practice of health physics by the American Board of Health Physics. She is an active member of a number of radiation and health-oriented professional organizations, such as the Health Physics Society (HPS), and currently Chairs the HPS Public Education Committee. She also serves on the Governor's (Colorado) Radiation Advisory Committee since 1988, as well as the Governor's Rocky Flats Scientific Panel on Monitoring, the Colorado Hazardous Waste Commission. She also serves on the National Academy of Sciences Committee on Low-Level Radioactive Waste Siting in New York State (1993 to the present) and is a Fellow of the Health Physics Society. Dr. Johnson has a number of publications to her credit, as well as broad-based consulting experience dealing with such topics as nuclear safety and radiological site assessments, risk assessment for uranium mill reclamation, risk assessment for uranium in groundwater, radiation monitoring for uranium miners, radiological risk assessment of abandoned mine lands, radium land clean-up standards, uranium mill license renewal application preparation and radiological considerations, radium safety and training, estimating the risk of lung cancer from inhalation of radon daughters indoors, and comparison of radioactivity and silica standards for limiting dust exposures in uranium miners, preparation of NRC license applications for consumer products, pre-operational site surveys, UMTRA health and safety audits, radon measurement, and other related topics. She chaired the ERAMS II advisory (EPA-SAB-RAC-ADV-98-001, August 28, 1998)., is currently (SINCE 1999) Chair of the RAC, and is currently chairing the MARLAP Review by the MARLAP Review Panel of the RAC. Her training includes a B.S. in Chemistry from the University of Massachusetts, an M.S. in Health Physics (as an AEC Health Physics Fellow) from the University of Rochester, and a Ph.D. in Microbiology and Environmental Health from Colorado State University.

Lipoti,Jill Chair

New Jersey Department of Environmental Protection

Jill Lipoti has served as Assistant Director, Radiation Protection Programs, New Jersey Department of Environmental Protection since 1989. In July 2003, Dr. Lipoti assumed the additional responsibility for the Toxic Catastrophe Prevention Act and the Discharge Prevention, Containment, and Countermeasures programs that have major implications for domestic security. Dr. Lipoti provided leadership and direction to the Bureau of Radiological Health in redesigning the x-ray inspection program to emphasize radiation dose reduction techniques. In conjunction with members of the Bureau of Nuclear Engineering, she developed a matrix to assist in making recovery and return decisions after a radiological contamination event. The matrix is structured to give priority to restoration of essential services prior to considerations involving allowing people to return to their homes or workplaces. Dr. Lipoti attended Cook College, receiving her B.S. degree in Environmental Science in 1977. She returned to Rutgers University for graduate study after working for Research Cottrell, an air pollution control device manufacturer. She received her Ph.D. in 1985 based on research on identification of individuals susceptible to noise-induced hearing loss. Dr. Lipoti is the Commissioner's designee to the Commission on Radiation Protection (CORP), a 10-member body authorized to promulgate regulations for the control of unnecessary radiation exposure in New Jersey. Dr. Lipoti has been involved in the New Jersey Low-level Radioactive Waste Disposal Facility Siting Board since 1989, first providing staff support, then becoming the Commissioner's alternate designee, and finally serving as the Executive Director until the Board's elimination through legislation. Dr. Lipoti currently serves as New Jersey's Commissioner to the Atlantic Compact, assuring that generators are able to dispose of their radioactive waste in Barnwell, SC. Dr. Lipoti has provided testimony before Congress on the radon program and testimony before the Nuclear Regulatory Commission on the effectiveness of nuclear power plant oversight and on the generally licensed device programs, including orphan sources of radiation. Elected as Chair of the Conference of Radiation Control Program Directors (CRCPD) in 1996, Dr. Lipoti received the Gerald S. Parker award in recognition of her leadership in the CRCPD. The Parker award is the highest honor that the organization can bestow. Dr. Lipoti was elected to the National Council on Radiation Protection and Measurement (NCRP) in 2001 and to the Board of Directors in 2002. Dr. Lipoti has been appointed to two terms of service (1997-1999; 2002-2005) on the Technical Electronic Products Radiation Safety Standards Committee (TEPRSSC). The committee provides advice to the Food and Drug Administration regarding proposed performance standards for electronic products that emit radiation. Dr. Lipoti was appointed to the Science Advisory Board, Radiation Advisory Committee (SAB/RAC) in 1998. She served as Chair of the RAC review of the Interagency Steering Committee on Radiation Standard (ISCORS) draft sewage sludge dose modeling report (12/2003).

Vetter,Richard J.

Mayo Clinic

Dr. Richard J. Vetter is Head, Section of Safety and Radiation Safety Officer for the Mayo Foundation and Professor of Biophysics of the Mayo Medical School in Rochester, Minnesota. His major areas of interest include biological effects and dosimetry of ionizing and nonionizing radiation, and public policy of radiation applications. Dr. Vetter is certified by the American Board of Health Physics and the American Board of Medical Physics. He is Former Health Physics Society President and Journal Editor, and has served as Editor-in-Chief of the Health Physics Journal, as well as on the Board of Directors of the Health Physics Society. He is a member of the NCRP, the Radiological Society of North America, the Society of Nuclear Medicine, the American Academy of Health Physics, and the International Conference on Incineration. He has served in numerous capacities on the Mayo Clinic and Foundation Activities, such as the Ad Hoc Committee on Low Level Radioactive Waste, the Radiation Safety Committee, the Mayo Foundation Radiation Safety Committee, and the Foundation Environmental Health and Safety Committee. He has also participated in a number of professional activities at the state level, such as the Minnesota User's Group on Low Level Radioactive Waste Management. He is or has been a reviewer for the American Council on Science and Health, the Health Physics Journal, Radiation Research and numerous other publications. He is author or co-author of more than 180 publications in the health physics area. He received his B.S. and M.S. in Health Physics from Dakota State University in Brookings, SD and his Ph.D. in Health Physics from Purdue University in West Lafayete, IN.